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ABSTRACT

The author's dissertation, summarized in this presentation, was primarily concerned with the question, "Are public schools like Max Weber's conceptualization of bureaucracy?" From a survey of the literature discussing the nature of organizations, a taxonomy of organizational facets was used, first, to identify and classify the features contained in the models of bureaucracy and of public schools and second, to compare the manner in which each of these organizational facets is manifest in the two models. A table summarizes the results of the detailed discussions of congruency between the models. Comparative analysis suggests that two contrasting cultures can be identified: the craft-like technology employed by teachers and the more bureaucratic process technology of systemwide management. The study concludes that there does not appear to be a high degree of congruency between Weber's model of bureaucracy and the model of public schools utilized in the study. Implications of the study for school management and for future research are discussed. (MLF)

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PUBLIC SCHOOLS AND WEBERIAN BUREAUCRACY: A SUMMARY

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December, 1981.

An invited paper for members of the Canadian Society for the Study of Educational Administration.

EA 016 142

PREFACE

To be invited to write a paper on one's dissertation for circulation to members of the Canadian Association for the Study of Educational Administration is an undoubted honour. To actually write the paper is a demanding and debilitating task, or at least I have found it so. My first draft was discussed and disemboweled at a departmental seminar. After a week or so of reintegrating my ego a second, radically altered but overlong, draft was produced. Two scholars I respect were asked to suggest revisions. When their independent acts of editorial surgery were placed side-by-side, little of the second draft remained. This then is my third attempt to produce the required paper, a paper which I naively believed could be produced with a minimum of effort!

The problems I encountered with the first two drafts may be endemic to the situation. Most writers of dissertations seem to experience a post-completion depression. Once the bound copy is in their hands they lose interest in its contents. Other horizons beckon and the author may turn his back, temporarily or permanently, on the work that was once so all consuming. A paper or two on some interesting findings may be diligently turned out, but the totality of the dissertation itself appears to be something which is not willingly reembraced. It was certainly thus in my case. To attempt a precis of the dissertation seemed unbearably pedestrian and retrogressive. Consequently my first two attempts at this assignment attempted to go beyond the dissertation itself. I wanted to expound on the significance of the study and present some critical comments on the established approaches to studying the bureaucratic nature of schools. In short I attempted to till several new fields using the dissertation as a plough. This was much more interesting than traversing old ground, but it was also self indulgent and dysfunctional. I realize now that there is no escape from my duty, which is to produce a workmanlike summary of the dissertation. Any critical comment I may wish to offer will be more appropriately, and better, made elsewhere, as will attempts to break new ground. What follows is a straightforward, in places terse and at times undeniably rough, summary of the dissertation.

INTRODUCTION

The study (Allison 1980) took the form of a dissertation on the organizational nature of public schools. There are many models of organizations available and my initial intent was to analyze schools through the medium of those models most commonly presented in the literature of educational administration. For the most part this literature assumes that these models help us to understand schools better, but little attention has actually been given to applying these models directly to schools. The emphasis has been on understanding them as models of organizations, rather than as models of schools. One consequence is that it is not at all clear how some of the models or their constituent elements actually apply to schools. The original intent, therefore, was to attempt an in-depth analysis of schools, using several different models of organizations as analytical frameworks.

As the study progressed it became clear that analysis would be better delimited to a single model of organization. The bureaucratic model was eventually selected on the grounds that it has found the most widespread recognition in the literature of educational administration. The only other real contender, the open systems model, was rejected primarily because (1), it is a highly general model of social (and other) organizations, rather than formal organizations in particular and (2), it has been found relatively less used in research studies of schools. This is not to say that the open systems approach to analyzing schools is not valuable or influential, for the converse is true. However the problems inherent in seeking a better understanding of schools through the open systems model seemed less pressing than those associated with the bureaucratic model. Because of the high applicability of general systems theory, for instance, there can be little dispute over a claim that schools can be treated as open systems. However the claim that schools are bureaucratic organizations and can thus be analyzed as bureaucracies has less firm a foundation.

In the study of organizations the term bureaucracy is generally reserved to identify social systems which display a particular set of characteristics such as a well defined hierarchy of authority and a

system of rules covering the rights and duties of employees (Hall 1963). Several different specifications of bureaucratic features are given in the literature, thus there is no single model of bureaucracy. However there is widespread agreement that the detailed account given by Max Weber (1922/1978) provides the foundation from which most contemporary conceptual and research based models are derived. For this reason Weber's exemplar account was adopted as the sole source for the model of bureaucracy used in the study.

Problem and Conceptual Framework

The research problem was formally stated as,

> To critically discuss the congruency between a model of the organizational nature of public schools and Max Weber's writings on bureaucratic forms of organization.

The notion of congruency was taken from Kenneth Boulding's (1966) outline of how knowledge is produced and validated. In his analysis knowledge takes the form of images of reality held by participants in that reality. The validity, that is the accuracy or truthfulness of this knowledge, is determined by the degree of agreement between an image and the element of reality it purports to represent. Two methods of establishing congruency between the image and reality are discussed by Boulding. In the case of 'folk' processes images formed by individuals are tested through direct action and then retained, modified or abandoned contingent on the results obtained. For example, a principal will likely have a personal understanding of his school: what it is, why it exists, how it works and so on. His administrative actions will be based on and constrained by this image and depending on the results of his actions, elements of the total image will be confirmed or modified.

In the scientific pursuit of knowledge original understandings of reality must first be cast into a form which can be communicated to others in a relatively unambiguous way. This requires the translation of images into models or theories. The congruency of these models to the phenomena they purport to explain is then tested through carefully controlled observation and measurement, a process which usually requires

the use of special instrumentation. In this case our principal's image of his school, or key elements of this image, would be cast into a model before being subjected to careful testing. Development of this model allows for other interested persons to incorporate the idea into their folk knowledge and to conduct their own independent assessments of congruency to their realities. Furthermore by clearly specifying the original image in model format the validity of the knowledge can be unambiguously judged.

Figure 1 applies this epistemological framework to the study.

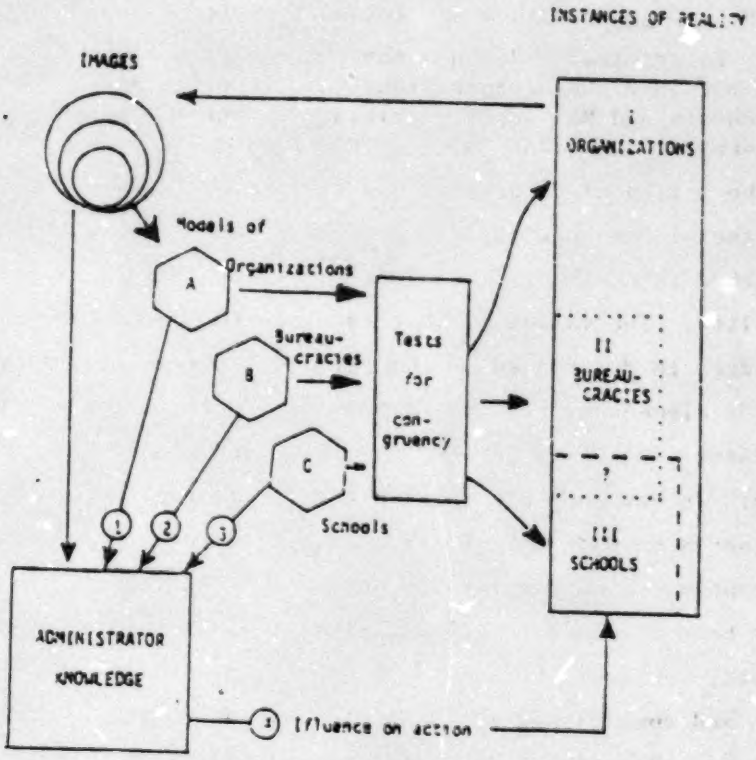


Figure 1

OVERVIEW OF THE CONCEPTUAL BASIS FOR THE STUDY

Schools and bureaucracies were assumed to be members of the larger set of social systems known as organizations, with the degree of similarity (congruency) between the two unknown. Images of these phenomena were considered to be held by participants in and observers of their reality and to thus influence their actions and perceptions. The scholarly study of educational administration has produced refined models of some of these images which, together with related discussions and research applications, are presented in the literature. Insofar as these models are known to administrators, they must provide an influence on their perceptions of and actions towards schools. Judging from the literature, models of bureaucracy, and particularly Weber's model, are reasonably well known to educational administrators. There must be concern, therefore, with how well this model accommodates the reality of schools. The congruity between the models in Figure 1 and the instances of reality they represent is, according to the Boulding schema, subject to scientific testing. Although a relatively substantial number of research studies and critical discussions of the bureaucratic nature of schools are available in the literature (Miskel, Fevurly and Stewart, 1978, Ratsoy 1973) the emphasis has not generally been placed on investigating the congruency between bureaucratic models and schools. Most analyses assume congruency and then attempt to utilize the bureaucratic model to identify relationships between practice and policy relevant variables. Several studies, for example, have tested relationships between 'degree of school bureaucratization' and 'teacher satisfaction'. To date these and other studies have produced contradictory results. The contradictory findings from these studies could be attributed to design weakness (Miskel, et al. 1979, p. 98), but what ever the immediate cause it would seem that incongruity between the models and the reality exists. A contributing factor to this incongruity could be that Greenfield (1981, p. 17) has referred to as the discipline's acceptance of "a trivialized version of Weber's insight into bureaucracy". Thus it appeared that an in-depth analysis of the congruency between Weber's model and schools would be worthwhile.

As indicated in the research question, the study did not attempt to investigate congruity between Weber's model (B in Figure 1) and real schools (III in Figure 1). The current tendency to trivialize Weber's model and the lack of attention paid to schools qua schools, suggested that an empirical investigation of congruency would be precipitous. What appeared to be appropriate at this time was the development of accurate models of the phenomena in question, and this was taken as the first objective for the study. The second objective was an analysis of the congruency between the models (B and C in Figure 1). This was an analysis of the conceptual congruency and as such can be seen as a necessary preliminary to empirical investigation. Furthermore this analysis allowed sufficient scope for a reasonably detailed discussion of the organizational nature of public schools to be attempted.

Method

Throughout the study schools were treated as one type of organization, while Weber's account of bureaucracy was taken as describing a particular form of organization, the question at issue being the degree to which these two manifestations of the more general phenomenon of formal organization are in accord. The appropriate method for pursuing this question appeared to be that of comparative analysis. Burns (1967, p. 118) asserts that:

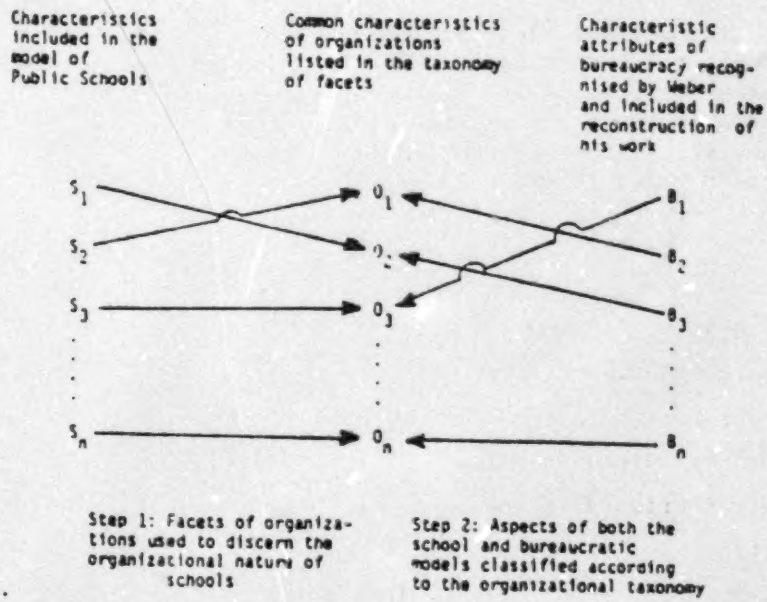
> The object of comparative study is to provide answers to the question "What is it?" - answers that are more comprehensive, more meaningful, and, eventually, more useful than those in common currency. The procedure of comparative study is to analyze the object of study ... into components and then to translate the question "What is it?" into two others: "What is it like?" and "What is it not like?" The reasoning process is essentially analogical.

This provides an alternate view of the research problem, for the study was primarily concerned with the question "Are public schools like Weber's conceptualization of bureaucracy?" Burns (1967, p. 127) continues:

> The valid guides for comparative studies, it is suggested, are analytical rather than empirical or methodological. What is necessary is the composition of a system of categories by which research data, the analytical methods applied to the data, and findings can be identified; such a system has to be reasonably logical, but the criterion of adequacy (serviceability) is its comprehensiveness.

In order to structure and guide the analysis of congruency between the models, a taxonomy of the distinctive characteristics of formal organization was developed to serve the purpose of Burns' 'system of categories'. This taxonomy was constructed from a survey of the literature discussing the nature of organizations, Burns' (1967, p. 128) own criterion of adequacy being employed in that the set of characteristics used was considered to "distinguish organizations from other institutions". Figure 2 outlines the manner in which this taxonomy was used. The same organizational characteristics were considered to be present in schools and bureaucracies, but the manner in which they are manifest was considered to be potentially variable. Thus the taxonomy of organizational facets was used to first identify and classify the features contained in the models of bureaucracy and school and then to compare the manner in which each of these organizational facets is manifest in the two models. The procedure sketched in Figure 2 was dubbed 'congruency mapping' in that it involved matching together the organizational features of school and bureaucracy <u>via</u> the analytical categories listed in the taxonomy of organizations. In Burns' terms the features contained in the models have the status of data, and in Boulding's scheme the taxonomy has the status of an instrument designed to structure and control the process of estimating congruency between the models.

The models were developed from the relevant literature which was identified and delimited by defining three knowledge bases and a standard source for Weber's notes on bureaucracy. The first two knowledge bases were created by selecting an arbitrary number of widely recognized survey or exemplar works dealing with organization and schools respectively (Allison 1980, Appendix A). The literature of educational


Characteristics included in the model of Public Schools
Common characteristics of organizations listed in the taxonomy of facets
Characteristic attributes of bureaucracy recognised by Weber and included in the reconstruction of his work
S_1
S_2
S_3
S_n
O_1
O_2
O_3
O_n
B_1
B_2
B_3
B_n
Step 1: Facets of organizations used to discern the organizational nature of schools
Step 2: Aspects of both the school and bureaucratic models classified according to the organizational taxonomy

APPLICATION OF THE TAXONOMY OF ORGANIZATIONAL CHARACTERISTICS IN THE PROCESS OF CONGRUENCY MAPPING

FIGURE 2

administration constituted an additional knowledge base: this was defined as the contents of the major disciplinary journals prior to 1979. Weber's conceptualization of bureaucracy first appeared in his unfinished Wirtschaft und Gesellschaft which was posthumously published in 1922. A complete English translation of this work did not become available until the Roth and Wittich edition was published in 1968, hence most of the partial translations by Gerth and Mills (1946) and Henderson and Parsons (1947) which were taken from different sections of Wirtschaft und Gesellschaft. Reference was made to all three translations as well as translations of other works by Weber in developing the reconctruction of his model that was used in the study. However most reliance was placed on and all quotations taken from the Henderson and Parsons' version. This choice was made in the interests of consistency since most of the previous work in educational administration has utilized this source.

Overview of the Design

Figure 3 offers a schematic overview of the research design used. The three phases in this figure were adopted from Coombes' (1964) 'model of data'. Phase 1 involved a sampling of the available literature pertaining to the research problem. The samples used were the knowledge bases described above. During the course of the study the contents of these literature samples together with the secondary sources cited, constituted the major bodies of literature consulted. Phase two involved the development of the taxonomy of organizational facets and the models of bureaucracy and public schools. Phase three was the analytical section of the study in which the congruency between the models was critically examined.

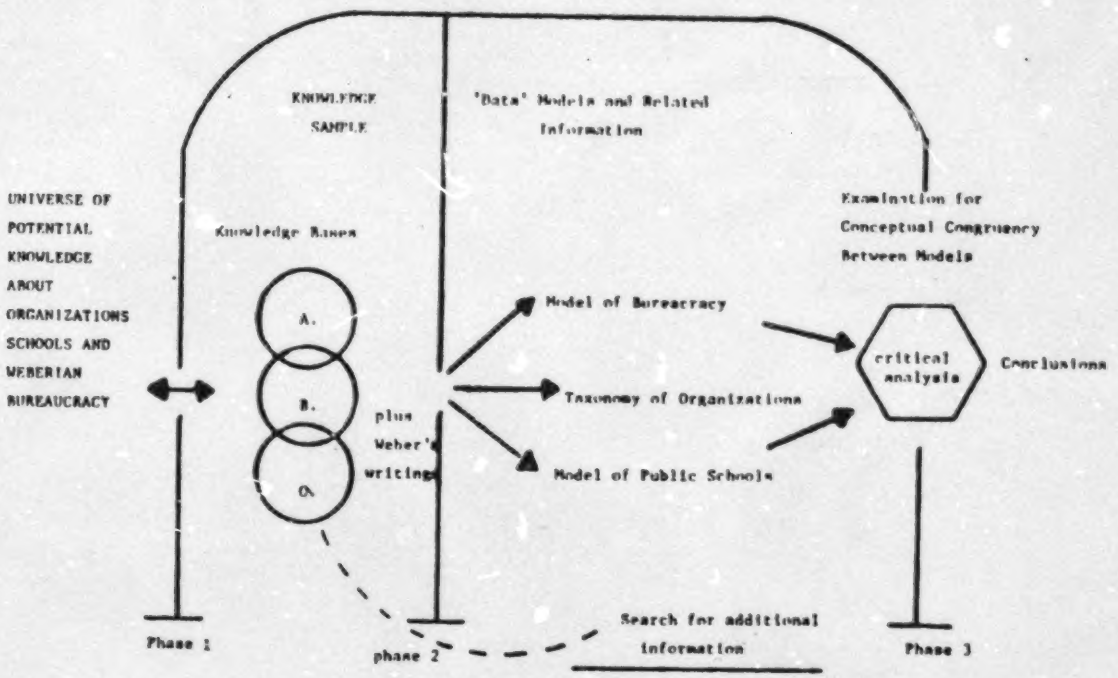


FIGURE 3
SCHEMATIC OVERVIEW OF THE DESIGN

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The Models

Four major models were developed and presented in the study: a model of Weber's conceptualization of bureaucracy, a model of schools as a particular type of social system, a model of the public variant of the generic school, and the taxonomy of organizations. Each will be briefly described.

The taxonomy of organizations. In developing this inventory of the characteristic features of formal organizations that serve to differentiate them from other instances of social organization, considerable reliance was placed on the features commonly identified in the previously described sample of the literature. The final taxonomy was comprised of the seven facets listed and commented upon in Table 1.

TABLE 1

TAXONOMY OF THE CHARACTERISTIC FACETS OF ORGANIZATIONS USED TO GUIDE DISCUSSION AND ANALYSIS IN THE STUDY

FACETS	Some related aspects
ENVIRONMENT	- the source of resources required for the establishment and operation of an organization - may be analyzed into various segments, including socio-cultural and economic
FORMAL ESTABLISHMENT	- frequently signified by a charter, the act of a superior body or the proclamation of objectives
GOALS	- may be evident in the original charter or a later statement of purpose or may be imputed by functional analysis
STRUCTURE	- identified by the formally established constituent elements such as positions or sub-systems and the interdependent relationships between them - has the potential to persist in the original or redesigned form beyond the tenure of individual members
AUTHORITY	- the major basis for maintaining and changing the structure and effecting coordination between constituent elements and members
TECHNOLOGY	- characteristic methods of doing the work necessary to attain objectives and overall purpose - may be analyzed into tools, tasks and techniques
PRODUCTS	- the goods and/or services produced are intended to meet some need or demand in the environment

As the major intent in developing this model was to produce a suitably comprehensive system of analytical categories, the model is descriptive rather than explanitory, however the order of the facets as listed in Table 1 and applied in the study reflects a pattern of logical reasoning found in the literature. Several aspects of organizations discussed in the literature were ignored in the taxonomy. A case in point is decision-making, an activity which features highly in some models of organizations. This and similar characteristics were omitted on the grounds of parsimony and emphasis: inclusion of all possible distinguishing features would have produced an overly large and cumbersome model ill-suited for the purpose at hand. Furthermore the taxonomy was intended to guide enquiry into the organizational, rather than the administrative nature of schools, hence processes such as decision-making and communication were not considered to command the attention they would deserve if this emphasis was reversed.

Schools. The particular nature of schools, that is to say the features that distinguish them from other organizations and give them their "schoolness", has been substantially ignored in the literature of educational administration (Allison 1978). Partly for this reason, and partly because it seemed necessary for the study, two chapters of the dissertation were devoted to refining and operationalizing available images of schools. In the first of these chapters attention was devoted to developing a model embodying the features characteristic of all different kinds of schools. In the second, features which appear to distinguish public schools from other types were identified and then the major organizational characteristics of the resulting model were isolated with the aid of the taxonomy of organizational facets. Both the generic and public school models were developed and presented in an ideal type format because this seemed an appropriate way to model these phenomena and because it would facilitate the analysis of congruency to Weber's ideal-type model of bureaucracy.

Both of the models have been described for CASEA members elsewhere (Allison 1979) and will only be briefly outlined here. Schools

were understood as special purpose systems located between lower and higher status positions in societies or sub-communities. As such they serve as bridges between child and adulthood, or between being unqualified and qualified for any number of positions, tasks or roles, such as dentist, engineer or a confirmed church member in our society and warrior, decision-maker, priest or initiate in other times and places. In discharging their social functions schools have the task of educating, socializing and selecting the aspirants for the positions, roles or statuses to which they provide entry. Clearly other types of social systems have been and are used to prepare and select occupants for positions within the divisions of labour, authority and status in societies: schools have no monopoly over the function they perform. At the heart of all such systems is the dyadic relationship between teacher and learner. In schools this is most clearly manifest in the teacher-class dyad and it is this characteristic feature of grouped instruction which makes schools relatively economic to operate and which may thus explain their popularity throughout ages and cultures. Some of the key characteristics of the generic school, therefore, are (1) aggregated classes of pupils, receiving (2) instruction in an (3) externally approved body of knowledge from (4) teachers selected by (5) external authorities representative of the community or social system for which the school is preparing future members.

Three differentiating characteristics of public schools were recognized in developing the ideal-type model of this particular type of school: (1) public schools are established and operated by sovereign or semi-sovereign governments, rather than special interest or status groups; (2) their pupils are all the non-exempted, non-adult and non-infant persons resident in the territory over which the government concerned exercises authority; and (3) these pupils attend the school at no direct cost to themselves or their households. Table 2 summarizes the way in which the characteristic features of organizations were considered to be manifest in the public variant.

TABLE 2

SUMMARY OF THE MAJOR ASPECTS OF THE ORGANIZATIONAL NATURE OF THE IDEAL-TYPE PUBLIC SCHOOL

Facet	Comment
ENVIRONMENT	The three major sectors of note are the task environment represented by the state wide schooling structure, the general social environment and the local school environment.
FORMAL ESTABLISHMENT	By act of the local authority according to the principle of geographic entitlement.
GOALS	Enrolment, attendance and coverage of the formal curriculum.
STRUCTURE	Classes and teachers provide a cellular structure within a "flat" administrative hierarchy.
AUTHORITY	Main bases are tradition, knowledge, parental and social support and law.
TECHNOLOGY	"Batch" in classrooms, "process" in school workflow.
PRODUCTS	Certificated graduates and non-certificated drop-outs.

Weberian bureaucracy. In order to place the reconstruction of Weber's model on a firm footing some attention was given to relevant aspects of his approach to sociological and organizational study. Among the important elements identified were Weber's concepts of Betriebsverbände and authority. A Betriebsverband is an organization containing separate governance, administrative and worker sub-systems. The significance of this concept lies in the fact that not all organizations contain a continuously operating administrative staff, but Weber's model of bureaucracy was developed to specifically apply to this particular sub system in Betriebsverbände. This limitation has been frequently overlooked in previous analyses of the bureaucratic nature of schools and other organizations, although the work of Jacques (1976) and Mintzberg (1979) has recently directed attention to the importance of recognizing such sub systems in the study of organizations.

Weber's well known typology of authority is also of importance in understanding his model of bureaucracy, not only because this model was developed to describe the administrative staff in Betriebsverbände

which operate on the basis of legal-rational authority, but also because Weber presents ideal-type models of organizations based on his other two types of legitimate domination. This is important because Weber's methodology requires that more than one ideal type model should be used in the analysis of social phenomena. Weberian analysis of organizations requires the use of bureaucratic, traditional and charismatic models for a given organization may be bureaucratic in one aspect, traditional in another and charismatic in some others.

Table 3 offers a brief summary of the reconstruction of Weber's model of bureaucracy that was used in the study. In order to honour the comparative elements of this analytical method brief reconstructions of his traditional and charismatic types of organization were also developed in the study and were employed in the subsequent analysis of the congruency between the public school and bureaucratic models.

TABLE 3

Summary of the Reconstruction of Weber's Model of Bureaucracy Employed in the Study

Characteristics of the System of Order

1. Rules are established and amended by formally enacted and generally approved processes of agreement or imposition on the grounds of intellectual rationality, expedience, or both.
2. These rules will constitute a logically consistent and intellectually analyzable system.
3. These rules specify (in part) sets of tasks, functions, obligations and responsibilities that define analytically and operationally distinct offices and duties, the existance and importance of which are independent of the individuals to whom they apply.
4. Personnel only comply to organizational authority in their capacity as members.

Structural Consequents

1. Delimited spheres of competence for all offices and officers.
2. A rational and well understood hierarchy of subordination and appeal.
3. Certified or otherwise demonstrable technical competence of all possible incumbents
4. Key productive resources are not owned by members.
5. No appropriation of position or materials by members.
6. Technology based on literary knowledge.

Personnel Characteristics

1. Appointment to positions.
2. Selection from amongst qualified applicants.
3. Employment under the terms of a formally free contract.
4. Remuneration by fixed salary to reward worth, not work.
5. Career tracks leading to pensions.

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The Analysis

Table 4 summarizes the results of the detailed discussions of congruency between the models. In this table the major points considered in the analysis are summarized under appropriate facet and model headings with conclusions regarding degree of congruency between the models being given in the right hand column.

Table 4

SUMMARY OF FACET ANALYSIS

Facet	Manifest in public schools as -	Manifest in bureaucracies as -	Degree of agreement
1. ENVIRONMENT	a: Schooling systems and structures b: Potentially turbulent second level task environment c: Broader society d: Communities and households	a: Dependable, calculable law b: 'Modern' capitalism c: Democratic franchise d: Mutated Protestant ethic	Would appear highly congruent in all sectors and especially so in Western states
2. FORMAL ESTABLISHMENT	a: By act of local or central authorities under conditions enacted by legislative power	a: By the governance sub-system	Congruent
3. GOALS	a: Enrolment of specified age cohort b: Coverage of curriculum	a: As specified by the governance sub-system	Congruent
4. STRUCTURE	a: 'Cellular' organization of labour with possible matrix elements b: Flat and relatively undifferentiated management hierarchy	a: Intellectually rational division of tasks and responsibilities on the basis of specialist training b: Clearly differentiated positions of authority	Dissonant
5. AUTHORITY	a: Externally derived rational-legal and traditional-legal powers for teachers and principal b: High probability for traditional and/or charismatic internal authority bases	a: Impersonal exercise and application of legal authority according to intellectually rational principles	Dissonant with a potential for incongruence, except for authority exercised by bodies in the first level task environment
6. TECHNOLOGY	a: Intensive-small- batch craft-like technology in classrooms b: Long-linked process type technology in the routing of pupils through the school. This technology can be regarded as an extension of the management technology of the system and structure levels	a: Solving of problems and the application of technical rules through intellectual analysis b: Creation, communication, storage and consultation of literary knowledge	Dissonant at classroom level and congruent at management level
7. PRODUCTS	a: Certificated graduates and non-certificated school leavers	a: As specified by the governance sub-system	Congruent

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Environment. The institutional, economic, political and social environments associated with public schools and Weber's model of bureaucracy would appear to be highly similar. Major points of agreement are the existence of bodies of calculable and enacted law that constrain the actions of individuals and organizations in a state, an economic system predicated on the pursuit of profit, the presence of authoritative bodies of the collegial and elected type, and the presence of values akin to those embodied in the Protestant ethic. The nature of bureaucratic environments is not discussed extensively by Weber in the presentation of his model of bureaucracy, thus the features summarized here are mostly taken from his broader writings. Nonetheless, Weber does develop a constant and coherent thesis in his consideration of modern societies, and the characteristics noted here seem consistent with his thoughts on this matter.

Establishment, goals and products. Little attention was given to these facets of organizations as it would appear that the manner in which they are determined and defined in public schools and bureaucracies is highly congruent. This statement applies, however, to major elements such as the goal of universal schooling or the legislated procedures to be used in establishing new schools. In these and similar cases the major decisions and requirements are taken by a superordinate authority, and it is this characteristic division of power that constitutes the basic point of congruency. It is clear, however, that the detailed content of school, classroom or even regional goal statements will not necessarily be specified by central authorities and that the actual content of the curriculum may be empirically variable. These points are not considered incongruent to Weber's model as the bases on, and the parameters within, which such decisions are taken are established and legitimated by the legislative authority or its ministry, and thus congruency to Weber's model can be considered to obtain.

Structure. Weber is less specific with regard to the characteristic structure of bureaucracies than is sometimes supposed in the literature. He does not, for example, specify the presence of a "tall"

hierarchy of authority nor does he discuss the problem of spans of control. However he does specify that divisions of labour and authority will be determined in an intellectually rational manner on the basis of delimited spheres of competence (offices) within which the appointed officials enjoy reasonable autonomy to apply their technical expertise. The division of teaching responsibilities in public schools would seem partially congruent to Weber's model but considerable scope for dissonance would appear to exist. This is particularly so if the time-span of teaching assignments is considered as the most relevant organizational principle, for the characteristic manner in which teachers may be assigned and reassigned to groups of students from term to term or year to year suggests that elements of matrix forms of organization are present in public schools. Furthermore, teachers would often appear to be employed as teachers rather than as specialists in a particular sector of the curriculum. Hence, the major 'offices' in the structure of public schools would appear to be 'teacher' and 'administrator' and this gives rise to relatively undifferentiated and possibly unspecialized divisions of labour and responsibility.

On the other hand, the teachers (and administrators) evidence many of the characteristics attributed by Weber to bureaucratic officials: they are employed under contract, remunerated by salaries paid in money, enjoy rights to a pension and they must have received specialist training.

In the final analysis, however, the structure of public schools appeared to be dissonant to that of Weberian bureaucracy. This is particularly evident if the organizational structure of public schools is contrasted with the structure of regional schooling systems and state-wide schooling structures, which appear much more congruent to Weber's model.

Authority. Differentiation between the state-wide system, school and classroom levels emerged as being of importance in the discussion of the bases and exercise of authority embodied in the models. The superordinate levels in schooling systems and structures would appear to place a high reliance on the application of intellectually rational rules, standards, criteria and norms of many kinds, and this

is specifically a bureaucratic feature. At the classroom level, however, elements of tradition and personal qualities would seem to be more important than conformity to, and the impersonal application of, technical norms and rationally derived rules. The nature of authority within the school itself appeared less clear. The existence of mutually agreed standards and norms which could be administered by the principal in cooperation with the staff was considered to provide a firm basis for intellectually rational authority. However, the presence of such internally agreed systems of order could not be determined within the ideal-type frame of reference and must be considered as an empirical variable. Furthermore, the existence of a legal base on which enforcement of such rules could rest was recognized as problematical. In the absence of an internally agreed system of order, then it was considered that traditional or personally legitimated types of authority could all be of importance in public schools. This is not congruent to the Weberian model.

Technology. This is another aspect of organizations on which Weber is relatively uninformative. He observes that decision-making and record keeping will be important tasks, and the application of technical knowledge would seem characteristic of the work process in bureaucracies. These elements are present in public schools, but seem to be primarily associated with a long-linked process type of technology that is concerned with the progression of pupils through the curriculum and the administration of school systems and state-wide structures. A completely different type of technology would seem characteristic of classroom teaching. Strong parallels between classroom teaching and the small-batch type of technology identified by Joan Woodward (1965) were encountered in the analysis and it was noted that this way of doing work is non-bureaucratic.

Summary. The image that emerges from this condensed overview of the analysis conducted in the study is one in which congruency to the bureaucratic model decreases along the structural continuum from state-wide schooling structures to classrooms. Aspects of organizational nature which are directly controlled by the superordinate authorities such as the overall goals, formal establishment and definition of product seem congruent to Weber's model, as does the broad political, economic and social matrix within which these policy decisions are taken. In relation to the key facets of structure, technology and authority however, a more complex situation would appear to obtain in which some bureaucratic elements are evident in public schools, but others are absent.

Major Conclusions

With reference to the problem statement adopted for the study the major formal conclusion was that there does not appear to be a high degree of congruency between Weber's model of bureaucracy and the model of public schools utilized in the study. Three qualifications to this statement are required. (1) This conclusion is based on the facet-by-facet analysis of the models summarized in Table 4, and rests upon indications of dissonance or incongruity on a number of key facets and on an overall image of dissonance that emerged as the analysis proceeded. Furthermore, the lack of congruency between the models recognized here is based on a conceptual analysis of ideal-type models and does not deny congruency between Weber's model and actual public schools. However, the conclusion does imply that public schools that are highly similar to the image of bureaucracy developed in this study will not be empirically common. (2) The conclusion stated above refers directly to public schools, and it is considered that public schooling systems (regional level of organization) and structures (state-wide level of organization) are, in an ideally typical sense, much more congruent to Weber's model. (3) Finally it must be noted that to some degree the formal conclusion is not necessarily novel. The literature presents a strangely ambivalent attitude toward the consideration of schools as bureaucracies. On one

hand there is the view that "the literature adequately establishes that the public schools are bureaucratic organizations" (Scott 1978, p. 43) and we may find many instances where authors openly or implicitly assume congruence to a bureaucratic model. In other treatments Weber's model - or more accurately the trivialized version - is frequently presented as being an outmoded remnant of the "classical" school of organizational analysis, and thus a conceptualization that has little contemporary relevance (e.g. Hanson 1975). Proponents of the view frequently argue that more 'enlightened' ways of conceptualizing and managing schools should be adopted. The logic of this view maintains that it is desirable for schools to be non-bureaucratic, thus implying that some schools exist and are operated in an unenlightened bureaucratic state. The emphasis, however, is that "good" schools are non-bureaucratic organizations. The conclusion reached in the study summarized here takes no cognizance of whether a school is 'good' or 'bad', or whether it is administered in accord with the tenets of 'advanced' human relations or contingency theory; the claim is that insofar as the model of public schools accurately reflects the 'natural' state of this type of organization, then such schools have little similarity to the bureaucratic form of organization and administration.

Implications for the Improved Administration of Public Schools

The study suggested a number of practical implications for school and system level administrators.

The two cultures. The differences noted between (1) the craft-like technology employed by teachers and the more bureaucratic process technology of system wide management, (2) the apparently traditionally based systems of order legitimated in schools and the intellectually rational and formally legislated rules in the externally imposed system of order and (3) the cellular, potentially matrix, type of structure identified in schools and the more bureaucratic spheres of management competence at the regional and state-wide organizational levels suggest that two contrasting cultures can be identified. School level administrators would appear to deal with tasks and discharge

responsibilities that relate to both of these cultures, while their organizational superordinates are embedded in the more bureaucratic, and the teachers in the more traditional sphere of action. This situation poses serious problems of identity and allegiance which have implications for administrative effectiveness. Should the principal identify with the system level culture he may well forfeit any effective basis for intervention in classrooms. On the other hand, should he attempt to retain or develop traditional or charismatic bases of authority he could lose credibility with his organizational superiors, or become handicapped in the administration of the externally imposed systems of order.

One possible solution to some of the problems that arise from this situation would be for the principal to attempt to increase the congruency of his school to Weber's bureaucratic model through the development of more intellectually rational systems of order and operation. This would require increased cooperative decision-making between the principal and the teachers in a suitably formalized manner. What would be important in this process is that decisions be formally made and enacted about such matters as school philosophy, appropriate teaching methodologies and procedures for conflict resolution. Weber's writings suggest that it does not matter greatly whether consensus or majority decision-making methods are utilized, but it will be crucial that all teachers, and where possible students, be involved, or at least adequately represented. Furthermore, the rules and guidelines developed in this manner must be held as binding on all members, including the principal. For this reason the active support and occasional involvement of higher level administrators would seem desirable, if not essential.

Reward and punishment. The procedures outlined above would help provide an intellectually rational basis for the exercise of authority by principals, but would do little to enhance their lack of legal authority over the teachers. In Weber's scheme legality is determined in terms of whether sanctions can be applied to encourage compliance or punish disobedience. In public school systems legal authority would seem to be reserved exclusively to persons and bodies

external to the public school itself. This is probably desirable if traditional or charismatic systems of order are operative in schools. If, however, an appropriate rationally determined system of order is in place in the school, it would seem desirable for principals to be accorded direct access to some limited sanctions. The form such powers could take is difficult to determine. Official letters of reprimand may be appropriate, or even the authority to temporarily suspend teachers pending a formal investigation by superior officials.

Matrix management. One other implication has a direct bearing on the practice of "twinning" schools, that is assigning a single principal to administer two or more schools. The practicality of such arrangements would seem to be well supported by aspects of the discussion presented in the study. Schools were viewed as essentially collections of classrooms and there would seem to be no compelling technical reason why all of these need to be located in the same premises. Hence principals assigned to manage several sets of classrooms in different locations may well be advised to encourage teachers, students and parents to view each set of classrooms as part of a larger, partially disaggregated school. Adoption of this perspective could well facilitate the emergence of more flexible staffing and teaching arrangements in which the matrix elements that seem inherent in school structure could be capitalized upon to a greater degree.

Implications for Research

One of the major implications arising from the study is the importance of the conceptual basis on which empirical research into the organizational nature of schools is conducted. Two relevant points stemming from the main text of the study were (1) the manner in which schools are conceptualized, and (2) the scope and limitations of Weber's model of bureaucracy. With reference to the first of these points it would seem that the distinction made in the study between public and other schools is important and could be kept in mind, and perhaps pursued empirically, in future research. In the second case several of the features of Weber's model of bureaucracy would appear to have

become distorted and trivialized in subsequent reconstructions. It follows that future researchers who attempt to build on Weber's model may be well advised to rely directly on his writings rather than on abbreviated, and possibly inaccurate, interpretations by others. A research exercise of immediate interest here would be a new translation of Weber's writings on organizations by a student or scholar of organizational theory.

A further implication of importance relates to the appropriate structural level for organizational research. The Moeller (1962) study of bureaucratization concentrated on the system level, although subsequent research has tended to take the school as the unit of analysis. The findings in this study suggest that the Moeller approach may well be more valid. Furthermore, in research relating to other organizational attributes, such as, for example, technology and authority, the classroom level may be appropriate rather than the school level.

In addition to these broad implications several specific areas for future research were identified, a few of which are listed here:

(1) Technological considerations. Strong similarities between Joan Woodward's construct of small batch technology and classroom teaching were noted in this study. These seem to require empirical validation.

(2) Systems of order. What type of rule-making process do teachers and administrators see as legitimate? Questions such as this have obvious saliency to Weber's models and attempts to answer this, and related questions, would seem most valuable.

(3) The status of teachers and pupils. The problem of whether teachers should best be regarded as members of the administrative or worker sub-system emerged as being of particular importance in the study. This problem could be partially resolved with the aid of research data. A phenomenological approach could well be valuable here. The appropriate status of pupils also needs investigation. Are they best conceptualized as organizational members, clients or 'conscripted beneficiaries'?

(4) Third generation bureaucratic research. If the early unidimensional and the latter dimensional enquiries into the bureaucratic nature of schooling systems are dubbed as first and second generation research respectively, then any new research thrust in this area would form a third phase. In the light of the analysis conducted in the study, such research would seem highly desirable, especially as any new data could be juxtaposed against data collected from second generation instrumentation. This would seem particularly valuable in that the second generation approach treats bureaucracy primarily as a structural concept, whereas a suitable third generation approach could pay attention to perceptual and value patterns in public schools. In developing suitable instrumentation, it may be more valuable to base questionnaire scales on attributes of organizations in general, rather than bureaucracies as was the case in second generation research. The approach used in the study provides an example, but not necessarily a model, for this. A suitable instrument could probably be one which provided data such that the structure, or technology, or systems of order in a school or school system could be classified as bureaucratic, traditional, charismatic or other.

Implications for Theory Development

Reappraising Weberian bureaucracy. My experiences in conducting the study have convinced me that Weber, and particularly his model of bureaucracy, has received poor and distorted treatment in the disciplinary literature. The advantages of the Weberian approach to conceptualization and analysis could well be reconsidered in future appraisals of organizational and administrative theory. A major conceptual stumbling block in any such reconsideration is the term bureaucracy itself. Despite attempts to present this as a value-free construct in the literature, many of the deleterious aspects of the pejorative image adhere to the term and this serves to detract from the acceptance of Weber's model, and by implication, his broader approach. Hence, some attention could be given to the development of a new and more value free term to denote organizations developed and operated on principles of calculable rationality.

Paradigm development. Any move towards a new paradigm in the discipline will, by definition, require the adoption of new assumptions, perspectives and research techniques. A final implication from this exploratory study is that none of the major paradigmatic alternatives presently identified in the on-going debate would appear to be particularly suitable for the conceptualization or investigation of public schooling systems. The compulsory schooling of entire child populations is inherently a massive endeavour, the comprehension of which demands the use of large-scale data collection and analysis. On the other hand, the productive sub-systems of classroom and school may be much more amenable to the insightful subjective analysis that is characteristic of the phenomenological approach. Hence the Doctrine of the Single Paradigm (Merton 1975: 43-5) may be untenable in the theoretical and empirical realms of educational administration. The debate over what may constitute appropriate theory and methodology may thus be specious unless explicit attention is accorded to the various levels of study that are available and the manner in which these inter-penetrate each other.

Summary

Whatever paradigms may rule in the future study of educational administration, it would seem possible that more direct attention will be paid to the nature of schools and public schooling systems. This summary paper and the study itself have suggested a number of theoretical approaches that may have utility in the development of this emphasis. However, the study was delimited to a discussion of only one of the presently available frames of organizational reference, and although an attempt was made to relate the analysis to relevant concepts in the broader literature, considerable scope exists for further conceptual analysis based on other organizational models. As illustrated by the study, the value of further explorations of this kind may lie not in the major conclusions reached but in the substance of the analysis. The development of valid knowledge rests not only in the pursuit of new horizons but in the careful reappraisal and application of that which is presently available.

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